

CONTENTS

The features marked with a star (*) are based entirely on material taken straight from standard research (and other Official and Therefore Always Correct) literature. Many of the other articles are genuine, too, but we don't know which ones.

ANNALS OF

IMPROBABLE RESEARCH



Special Section: Numbers

- 6 Numbers Research Review*
- 11 Preferred Numbers Research*
- 15 Female and Male Numbers*
- 17 Accounting With and Without Numbers*
- 19 A Million Random Digits*
- 20 15 and 22—The Numbers of Life's Frustrations*

Improbable Research*

- 22 The Prolifically Dark-Sided Dr. Koob*

Improbable Research Reviews*

- IFC May We Recommend: Mindfulness Versus Mind-Wandering*
- 3 Improbable Research: Joy and Death**
- 4 Medical: 60 Pints of Beer, Tickling*
- 26 Improbable Sex: Age-Tiered Pricing, Fifty Shades of Kink*
- 27 Soft Is Hard: Psychologists Under the Bed*

News & Notes

- 2 AIR Vents (letters from our readers): Imaginary “White Christmas”
- 5 Editorial Board
- 5 AIR books
- 25 Puzzling Solutions: Adapting Flapping Flight to Man
- 28 Index of Special Issues
- IBC Teachers' Guide
- IBC Unclassified Ads



Where There's More

There's always new improbable — it's not what you expect! — stuff on the Improbable Research blog at IMPROBABLE.COM

On the Front Cover

A number of numbers appear in this number of the magazine.

Age	Sex	Time	Score	Edge	Roll
18	M	25	22	42	13
19	F	24	14	14	14
20	M	22	14	14	14
21	F	14	14	14	14
22	M	14	14	14	14
23	F	14	14	14	14
24	M	14	14	14	14
25	F	14	14	14	14
26	M	14	14	14	14
27	F	14	14	14	14
28	M	14	14	14	14
29	F	14	14	14	14
30	M	14	14	14	14
31	F	14	14	14	14
32	M	14	14	14	14
33	F	14	14	14	14
34	M	14	14	14	14
35	F	14	14	14	14
36	M	14	14	14	14
37	F	14	14	14	14
38	M	14	14	14	14
39	F	14	14	14	14
40	M	14	14	14	14
41	F	14	14	14	14
42	M	14	14	14	14
43	F	14	14	14	14
44	M	14	14	14	14
45	F	14	14	14	14
46	M	14	14	14	14
47	F	14	14	14	14
48	M	14	14	14	14
49	F	14	14	14	14
50	M	14	14	14	14
51	F	14	14	14	14
52	M	14	14	14	14
53	F	14	14	14	14
54	M	14	14	14	14
55	F	14	14	14	14
56	M	14	14	14	14
57	F	14	14	14	14
58	M	14	14	14	14
59	F	14	14	14	14
60	M	14	14	14	14
61	F	14	14	14	14
62	M	14	14	14	14
63	F	14	14	14	14
64	M	14	14	14	14
65	F	14	14	14	14
66	M	14	14	14	14
67	F	14	14	14	14
68	M	14	14	14	14
69	F	14	14	14	14
70	M	14	14	14	14
71	F	14	14	14	14
72	M	14	14	14	14
73	F	14	14	14	14
74	M	14	14	14	14
75	F	14	14	14	14
76	M	14	14	14	14
77	F	14	14	14	14
78	M	14	14	14	14
79	F	14	14	14	14
80	M	14	14	14	14
81	F	14	14	14	14
82	M	14	14	14	14
83	F	14	14	14	14
84	M	14	14	14	14
85	F	14	14	14	14
86	M	14	14	14	14
87	F	14	14	14	14
88	M	14	14	14	14
89	F	14	14	14	14
90	M	14	14	14	14
91	F	14	14	14	14
92	M	14	14	14	14
93	F	14	14	14	14
94	M	14	14	14	14
95	F	14	14	14	14
96	M	14	14	14	14
97	F	14	14	14	14
98	M	14	14	14	14
99	F	14	14	14	14
100	M	14	14	14	14

On the Back Cover

Minna Lyons of the University of Liverpool describes her prize-winning research about the relationship between psychopathy and night owls, at the University of Aarhus, on April 10, 2018. This event, part of the Ig Nobel Spring Eurotour, was livestreamed to dozens of other auditoriums in Denmark and Iceland. Photo: Alice Shirrell Kaswell, Improbable Research staff.



Some Coming Events

See IMPROBABLE.COM for details of these and other events:

July 10, 2018

Ig Nobel Ceremony Tickets go on sale

September 13, 2018

Ig Nobel Prize Ceremony, Harvard U

September 15, 2018

Ig Informal Lectures, MIT

September 22, 2018

Opening of Ig Nobel Exhibition, Tokyo, Japan

October 3, 2018

Orlando, FL, USA

October 4, 2018

Harvard University

October 10, 2018

Hartford, CT, USA

November 23, 2018

Annual “Science Friday” radio broadcast

Autumn 2018

Ig Nobel Fall EuroTour

A MILLION RANDOM DIGITS

by Marc Abrahams, *Improbable Research* staff

People who love numbers—truly love them—needn't hesitate when asked the question “What is your favorite book?” There is only one possible answer: *A Million Random Digits with 100,000 Normal Deviates*, published by the Rand Corporation in 1955.

This nonfiction classic was a collaborative effort. Fourteen co-authors are listed. Bibliophiles will note that among them are a Bower, two Browns, and a Mood.

There is text in the book, but it is not plentiful—enough only that purists have something to complain about. It is prefatory, and easily skipped.

The main section of the book consists entirely of digits, arranged fifty to a line. Each line also has an identifying line number, which some readers will count as an unexpected bonus.

The book has a second, smaller section filled with deviates—statistical deviates. These will appeal more to some readers than to others.

The main section begins in a manner that tradition-minded critics find well and meet. The first digit is 1. The modern reader will be tempted to call this stodgy and old-fashioned. But determination and persistence will pay off for anyone who manages to keep reading, for the next digit is zero.

That sudden, heart-stopping zero is immediately succeeded by a second zero -- and it is at this point that things take a wrenching twist. “9,” the authors write next, and without any hesitation at all they then plunge into a thrilling passage that evokes an entire universe of digits:

7 32533 76520 13586 34673 54876 80959 09117 39292 74945

At this point, things are moving with so much momentum that nothing short of slamming the book shut could stop this epic, expectation-confounding march. Much joy is to be had in the reading, with perhaps now and then a pause for contemplation and a brisk cup of water.

It would be unconscionable to reveal much detail, but I cannot resist mentioning a few highlights. In line 2080 there suddenly appears, with no warning at all, the passage:

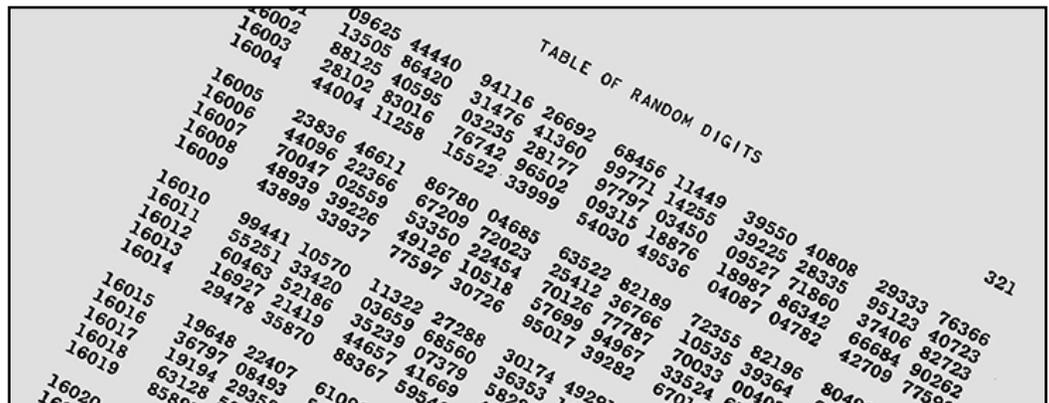
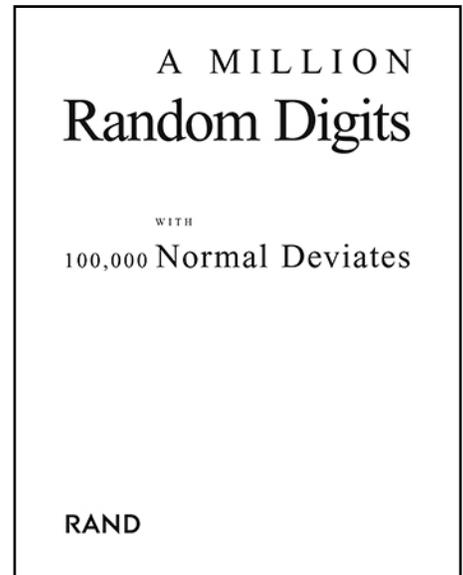
44444

This shocking thunderbolt serves a double duty, advancing the plot and also foreshadowing a most wonderful reappearance much later in the book. I ought say no more than that the reader will feel drained by the time he or she encounters that 44444 again.

The comic interludes—a sly mention of “12345” comes especially to mind—make for good, rabble-rousing yuks.

The Normal Deviates section of the book seems derivative. But that is a minor quibble about what is really just an appendix.

The main section is a memorable read. It defies anticipation. The reader's sense of what comes next is almost constantly being upset. But anyone who manages to keep on reading will be well and truly rewarded when, at long last, the authors reveal the identity of the millionth digit.



Detail from the book.